



DEPARTMENT OF TRANSPORTATION
HAZARDOUS MATERIALS REGULATIONS BOARD
WASHINGTON, D.C. 20590

15047

[Docket No. HM-81; Amendment No. 173-52]

PART 173—SHIPPERS

Sulfuric Acid

The purpose of this amendment to the Department's Hazardous Materials Regulations is to provide additional packaging for sulfuric acid and to delete other packaging considered obsolete. This amendment also limits the use of specification DOT-17F metal drums to sulfuric acid solutions not exceeding 98 percent concentration. It further editorially changes the format of § 173.272.

On March 19, 1971, the Hazardous Materials Regulations Board published a notice of proposed rule making, Docket No. HM-81; Notice No. 71-8 (36 F.R. 5299) which proposed this amendment. Interested persons were invited to give their views and several comments were received by the Board. One commenter objected to deleting the packaging identified as obsolete. No specific data were presented. The objection was based on potential usage by small or foreign shippers. Since there has been no demonstrated need for earthenware containers or wooden barrels in the packaging of sulfuric acid, provisions for these packagings in § 173.272 are deleted. The Board acknowledges that earthenware containers or wooden barrels might be considered for use in the future, but as packaging technology advances, the Board wants the regulations to reflect these improvements. The Board intends to consider similar changes for other commodities as the regulations are revised.

One commenter pointed out that to avoid any erroneous interpretation of § 173.272(i) (26) based on the wording in § 173.272(i) (23) through (25), § 173.272(i) (26) should include the phrase "rubber-lined". The Board agrees with the intent of the comment but the term "rubber-lined" would impose a restriction on the use of the subject tank cars not now found in the regulations and not proposed by Notice No. 71-8. Accordingly, the term "lined" has been added to describe the type of tank cars authorized, without limitation as to the lining material.

Another commenter stated that as written, the proposal did not authorize certain tank cars for the transportation of 65 percent to 65.25 percent concentration sulfuric acid and should have. Section 173.272 (d) and (e) are changed accordingly since the Board does agree with this observation. According to the experience obtained under a special permit referenced by the Board in Notice No. 71-8, it was the intent to cover these shipments in this rule-making action.

In consideration of the foregoing, 49 CFR Part 173 is amended as follows:

In § 173.272, paragraphs (c), (d), (e), (f), (g), (h), and (i) are amended; paragraphs (j), (k), and (l) are canceled as follows:

§ 173.272 Sulfuric acid.

(c) Sulfuric acid concentration of 51 percent or less: Authorized packaging is described in subparagraphs (1) through (16) and (23) through (26) of paragraph (i) of this section.

(d) Sulfuric acid concentration of greater than 51 percent to not over 65.25 percent: Authorized packaging is described in subparagraphs (1) through (16) and (27) of paragraph (i) of this section.

(e) Sulfuric acid concentration of greater than 65.25 percent to not over 77.5 percent: Authorized packaging is described in subparagraphs (1) through (16) and (20) through (22) of paragraph (i) of this section.

(f) Sulfuric acid concentration of greater than 77.5 percent to not over 95 percent: Authorized packaging is described in subparagraphs (1) through (22) of paragraph (i) of this section.

(g) Sulfuric acid concentration of greater than 95 percent to not over 100.5 percent: Authorized packaging is described in subparagraphs (1) through (4) and (14) through (22) of paragraph (i) of this section.

(h) Sulfuric acid concentration of over 100.5 percent: Authorized packaging is described in subparagraphs (1) through (4), (17), and (19) through (22) of paragraph (i) of this section.

(i) Authorized packagings are described as follows:

(1) Specification 15A, 15B, 15C, 16A, or 19A (§§ 178.168, 178.169, 178.170,

178.185, 178.190 of this chapter). Wooden boxes with glass inside containers, not over 1 gallon capacity each, except that a glass inside container up to 3 gallons capacity may be used if only one container is packed in each outside wooden box.

(2) Specification 12A (§ 178.210 of this chapter). Fiberboard boxes with inside glass bottles not over 5 pints capacity each. Not more than six 5-pint glass bottles may be packed in one outside container. Shipper must have established that the completed package meets the test requirements prescribed in § 178.210-10 of this chapter.

(3) Specification 33A (§ 178.150 of this chapter). Polystyrene cases (nonreusable container) with inside glass bottles not over 5 pints capacity each. Not more than four 5-pint bottles may be packed in one outside container.

(4) Specification 1X (§ 178.5 of this chapter). Boxed carboys; single-trip for export only. For shipment by water to noncontiguous territories or possessions of the United States and foreign countries; shipments from inland points in the United States which are consigned to such destinations are authorized to be transported to ship side by rail freight in carload lots only and by motor vehicle in truckload lots only.

(5) Specifications 1H, 15P, or 22C (§§ 178.13, 178.182, 178.198 of this chapter). Metal crate with an inside polyethylene carboy; or glued plywood or wooden box, or plywood drum as prescribed by § 178.198-2(a) of this chapter with an inside specification 2T or 2TL (§ 178.21, 178.27 of this chapter) polyethylene container.

(6) Specification 6D or 37M (nonreusable container) (§§ 178.102, 178.134 of this chapter). Cylindrical steel overpacks with an inside specification 2S, 2SL, or 2T (§§ 178.35, 178.35a, 178.21 of this chapter) polyethylene container. Overpack of 55-gallon capacity must be constructed of at least 16-gage steel throughout when used for sulfuric acid of 93 percent or greater concentration.

(7) Specification 16D (§ 178.187 of this chapter). Wirebound wooden overwrap, with an inside specification 2T, 2TL, 2S, or 2SL (§§ 178.21, 178.27, 178.35, 178.35a of this chapter), polyethylene container.

(8) Specification 21P (§ 178.225 of this chapter). Fiber drum overpack with an inside specification 2T or 2U (§§ 178.21, 178.24 of this chapter) polyethylene container not over 15-gallon capacity.

(9) Specification 34 (§ 178.19 of this chapter). Polyethylene container without overpack, not over 30-gallon capacity.

(10) Specification 16A (§ 178.185 of this chapter). Wirebound wooden box (see § 178.185-22 of this chapter) with an inside specification 2U (§ 178.24 of this chapter) polyethylene container. The polyethylene container must be separated from the wooden box by a complete corrugated fiberboard liner and top and bottom pads.

(11) Specification 12P (§ 178.211 of this chapter). Fiberboard boxes with an inside specification 2U (§ 178.24 of this chapter) polyethylene container not over 5-gallon capacity each. Wire staples are not authorized for assembly or closure of boxes, except when polyethylene container is completely enclosed in an inside box free of wire staples or other projections that could cause failures.

(12) Specification 12B (§ 178.205 of this chapter). Fiberboard boxes with inside polyethylene containers or other containers of plastic compatible with the chemical, not over 1-gallon capacity each. Inside containers must be cushioned to prevent movement in the outside box. Not more than four 1-gallon inside containers may be packed in one outside container. Authorized gross weight not over 75 pounds.

(13) Specification 12R (§ 178.212 of this chapter). Paperfaced expanded polystyrene board boxes with inside specification 2E (§ 178.24a of this chapter) polyethylene bottles not over 1-gallon capacity each. Not more than four 1-gallon polyethylene bottles may be packed in one outside packaging.

(14) Specification 12R (§ 178.212 of this chapter). Paperfaced expanded polystyrene board boxes with inside glass bottles not over 5 pints capacity each. Not more than six 5-pint bottles may be packed in one outside shipping container.

(15) Specification 1A, 1C, or 1K (§§ 178.1, 178.3, 178.14 of this chapter). Carboys in boxes or kegs.

(16) Specification 1D or 1E (§§ 178.4, 178.7 of this chapter). Glass carboys in boxes or plywood drums, of not over 6.5 gallons nominal capacity.

(17) Specification 5A (§ 178.81 of this chapter). Metal barrels or drums. Authorized for sulfuric acid of 77.5 percent or greater concentrations, with or without an inhibitor, provided such acid has a corrosive effect on steel no greater than 93.2 percent sulfuric acid, measured at 100° F.

NOTE 1: Tapered steel plugs, without gaskets, for standard specification 5A flanges are authorized. Threaded length must not be less than 1.5 inches. Major diameter of plug must not be over $2\frac{1}{2}$ inches, and minor diameter not less than $2\frac{3}{4}$ inches.

(18) Specification 17F (§ 178.117 of this chapter). Metal barrels or drums (single-trip only). Drums equipped with vented closures of an experimental type approved by the Bureau of Explosives are also authorized for export shipments. Authorized for sulfuric acid of 77.5 percent to 98 percent concentrations with or without an inhibitor, provided such acid has a corrosive effect on steel no greater than 93.2 percent sulfuric acid, measured at 100° F.

(19) Specification 5C (§ 178.83 of this chapter). Metal barrels or drums of Type 304, 316, or 347 stainless steel or other types of stainless steel of at least equivalent corrosion resistance and physical properties. Authorized for sulfuric acid of 93 percent or greater concentrations.

(20) Specification 60 (§ 178.255 of this chapter). Portable tank. Authorized for sulfuric acid of 65.25 percent of greater concentrations provided the corrosive effect in steel is not greater than that of 65.25 percent sulfuric acid, measured at 100° F.

(21) Specification MC 310, MC 311, or MC 312 (§ 178.343 of this chapter). Tank motor vehicles. Authorized for sulfuric acid of concentrations 65.25 percent or greater concentrations, provided the corrosive effect in steel is not greater than that of 65.25 percent sulfuric acid, measured at 100° F.

(22) Specification 103A,¹ 103AW, 111A100F2, or 111A100W2 (§§ 179.200, 179.201 of this chapter). Tank cars. Authorized for sulfuric acid of concentrations 65.25 percent or greater concentrations, provided the corrosive

effect in steel is not greater than that of 65.25 percent sulfuric acid, measured at 100° F. Tank cars used for sulfuric acid, mixed acid (nitric and sulfuric acids) (nitrating acid), and other fuming acids, may be equipped with safety vents incorporating lead discs having a $\frac{1}{8}$ -inch breather hole in their center. The $\frac{1}{8}$ -inch breather hole is not permitted in lead discs of safety vents on oleum tank cars.

(23) Specification 5D (§ 178.84 of this chapter). Rubber-lined metal drums.

(24) Specifications 60 (§ 178.255 of this chapter). Rubber-lined portable tanks.

(25) Specification MC 310, MC 311, or MC 312 (§ 178.343 of this chapter). Rubber-lined tank motor vehicles.

(26) Specification 103B,¹ 103BW, or 111A100W5 (§§ 179.200, 179.201 of this chapter). Lined tank cars.

(27) Specification 103AW, 111A100F2 or 111A100W2 (§§ 179.200, 179.201 of this chapter). Tank cars having tanks equipped with a phenolic lining impervious to the lading.

(j) [Canceled.]

(k) [Canceled.]

(l) [Canceled.]

This amendment is effective October 15, 1971, however, compliance with the regulations, as amended herein, is authorized immediately.

(Secs. 831-835, Title 18, United States Code; sec. 9, Department of Transportation Act, 49 U.S.C. 1657; title VI and sec. 902(n), Federal Aviation Act of 1958, 49 U.S.C. 1421-1430 and 1472(h))

Issued in Washington, D.C., on August 6, 1971.

W. F. REA III,
Rear Admiral, U.S. Coast
Guard, By direction of Com-
mandant, U.S. Coast Guard.

CARL V. LYON,
Acting Administrator,
Federal Railroad Administration.

ROBERT A. KAYE,
Director, Bureau of Motor Car-
rier Safety, Federal Highway
Administration.

SAM SCHNEIDER,
Board Member for the
Federal Aviation Administration.

[FR Doc.71-11584 Filed 8-11-71; 8:45 am]

¹Use of existing tank cars authorized, but new construction not authorized.